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OM protein - protein search, using sw model

Run on: January 30, 2004, 15:23:07 ; Search time 21 Seconds  
(without alignments)  
1124.260 Million cell updates/sec

Title: US-10-037-311B-1

Perfect score: 3004

Sequence: 1 MDQNSYRRSSPIRTTGGSS.....GTLVPHVHCHDISWGLKLV 558

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents, AA:\*

1: /cgn2\_6/ptodata/1/iaa/5A\_COMB.pep.\*  
2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep.\*  
3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep.\*  
4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep.\*  
5: /cgn2\_6/ptodata/1/iaa/PTCUS\_COMB.pep.\*  
6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	111.5	3.7	804	4	US-09-107-532A-6348
2	93	3.1	723	4	US-09-134-001C-5060
3	92.5	3.1	468	4	US-03-252-991A-31996
4	92.5	3.1	993	4	US-08-836-687B-30
5	92	3.1	809	4	US-09-186-276B-58
6	92	3.1	809	4	US-08-842-445-58
7	92	3.1	809	4	US-09-186-188B-58
8	91	3.0	554	4	US-09-489-847-352
9	90	3.0	758	2	US-08-222-617A-6
10	90	3.0	3666	2	US-08-222-617A-12
11	90	3.0	3727	2	US-08-222-617A-27
12	90	3.0	3778	2	US-08-222-617A-2
13	89.5	3.0	1286	3	US-09-268-140-3
14	89	3.0	1285	2	US-08-540-406-6
15	89	3.0	1285	3	US-08-656-055-6
16	89	3.0	1285	3	US-08-954-668-6
17	89	3.0	1285	4	US-08-918-658-6
18	89	3.0	1285	4	US-09-724-631-6
19	89	3.0	1285	5	PCT-US95-13233-6
20	88.5	2.9	515	3	US-08-369-822C-23
21	88.5	2.9	515	3	US-08-582-776C-38
22	88.5	2.9	515	3	US-08-434-831B-35
23	88	2.9	957	4	US-09-914-259-16
24	86.5	2.9	771	4	US-09-462-284-2
25	86.5	2.9	1032	4	US-09-914-259-26
26	85.5	2.8	1874	4	US-09-331-403-2
27	85	2.8	461	4	US-09-134-001C-5311

## ALIGNMENTS

## RESULT 1

US-09-107-532A-6348

; Sequence 6348, Application US/09107532A

; Patent No. 6583275

; GENERAL INFORMATION:

; APPLICANT: Lynn A Doucette-Stamm and David Bush

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ENTEROCOCCUS FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS

; NUMBER OF SEQUENCES: 7310

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: GENOME THERAPEUTICS CORPORATION

; STREET: 100 Beaver Street

; CITY: Waltham

; STATE: Massachusetts

; COUNTRY: USA

; ZIP: 02354

; COMPUTER READABLE FORM:

; MEDIUM TYPE: CD/ROM ISO9660

; COMPUTER: PC

; OPERATING SYSTEM: <unknown>

; SOFTWARE: ASCII

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/107,532A

; FILING DATE: 30-Jun-1998

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 60/085,598

; FILING DATE: 14 May 1998

; APPLICATION NUMBER: 60/051571

; FILING DATE: July 2, 1997

; ATTORNEY/AGENT INFORMATION:

; NAME: Ariniello, Pamela Deneka

; REGISTRATION NUMBER: 40,489

; REFERENCE/DOCKET NUMBER: GTC-012

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (781)893-5007

; TELEFAX: (781)893-8277

; INFORMATION FOR SEQ ID NO: 6348:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 804 amino acids

; TYPE: amino acid

; TOPOLOGY: linear

; MOLECULE TYPE: protein

; HYPOTHETICAL: YES

; ORIGINAL SOURCE:

; ORGANISM: Enterococcus faecium

; FEATURE:

; NAME/KEY: misc feature

; LOCATION: (B) LOCATION 1...804

; SEQUENCE DESCRIPTION: SEQ ID NO: 6348:

US-09-107-532A-6348

Sequence 7, Appli  
Sequence 7, Appli  
Sequence 5, Appli  
Sequence 5, Appli  
Sequence 2, Appli  
Sequence 2, Appli  
Sequence 4996, Ap  
Sequence 3, Appli  
Sequence 3, Appli  
Sequence 3, Appli  
Sequence 33, Appli  
Sequence 2, Appli  
Sequence 33, Appli  
Sequence 33, Appli  
Sequence 4, Appli  
Sequence 32, Appli  
Sequence 32, Appli

28 85 2.8 584 1 US-08-179-738-7  
29 85 2.8 584 2 US-08-628-145-7  
30 85 2.8 591 1 US-08-179-738-5  
31 85 2.8 591 2 US-08-628-145-5  
32 85 2.8 596 1 US-08-179-738-2  
33 85 2.8 596 2 US-08-628-145-2  
34 85 2.8 742 4 US-09-107-532A-4996  
35 85 2.8 777 2 US-08-874-678-3  
36 85 2.8 777 3 US-08-643-839-3  
37 85 2.8 777 4 US-09-348-886-3  
38 85 2.8 1298 1 US-08-222-616-33  
39 85 2.8 1298 1 US-08-340-011-2  
40 85 2.8 1298 3 US-08-901-710-2  
41 85 2.8 1298 4 US-08-446-648-33  
42 85 2.8 1298 5 PCT-US95-04228-33  
43 85 2.8 1363 1 US-08-340-011-4  
44 85 2.8 1363 2 US-08-874-678-32  
45 85 2.8 1363 3 US-08-643-839-32

Query Match 3.7%; Score 111.5; DB 4; Length 804;  
 Best Local Similarity 21.4%; Pred. No. 0.019;  
 Matches 101; Conservative 61; Mismatches 132; Indels 179; Gaps 26;

QY 101 LIASGFDEDCSLRYOSVHYRK-----PSYPKSSYLISKLNRYKPKLHKRCOPGT-----150  
 DB 194 LMAKFPD-----BYRKQRELAVAAYK-----TIRTKQLFVEAPTGTGKTI 237

QY 151 ESKYKALKQDQDHIDGDE-----CKYVWISPSGLGNRILSLASVFLYALLTD 200  
 DB 238 STLFPALKAVGEE-----EGEKIFYLTAKTITRQVAEDAMTALKDXTGAEVKSVTLTA--KD 291

QY 201 RVLLVDRGKMDLDFCEPFLGMSWLLPLDPPMTDQ-----FDGLNQEISSR 245  
 DB 292 KICF-----LDTECNP-----DQCPYANGYNNRINEGLWDLNHNEN-- 328

QY 246 CYGYMVNQVIDT---EGTLSHLYLHLVHDYGDHDKMFCGEGDQTFIGKVPMLIVKTDNY 302  
 DB 329 ---QITREVIETYARKHTLCPPELSL-----DVSIMCD-----VIGDYNV 366

QY 303 -FVPSLWLPFGFDELNKLFPQKATVPHLGRVLPHTNQVWGLVTR---YVEAYLSHAD 358  
 DB 367 LFDPTVYLRRFFDEKNE-----DYLFL-LIDEAHLNVRNSREMYSAELSSEYK 412

QY 359 EKIGIQVRVDFDEPGFQHVMDQISSCTQKEKLLPEVDLT--VERSRHVNTPKHKAVALVT 416  
 DB 413 TK-----RSKEALPKFCKLHRFPN-----KLLKEFDSIREIAKEDHDYHOKAPAS 461

QY 417 SLNAGY--AENLSKSMWYPTSTGEIIGVHQPSQE-----GYQQ 453  
 DB 462 LVKAGYQLSEKIKEWLAEPF-----EHPQEQQLLPYVDFLLHFLKVSFVDDHYET 512

QY 454 TEKMHNGKALAE-----MYLLSLTDN-----LVTSAMSTFGYVAGGLGLK 495  
 DB 513 TVEKTVDLIVKEFCIDPSLFLQSLDGKGSILFSASFPLSYOETLGGQK 565

RESULT 2  
 US-09-134-001C-5060  
 ; Sequence 5060, Application US/09134001C  
 ; Patent No. 6380370  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Lynn Doucette-Stamm et al  
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS  
 ; FILE REFERENCE: GTC-007  
 ; CURRENT APPLICATION NUMBER: US/09/134,001C  
 ; PRIOR FILING DATE: 1998-08-13  
 ; PRIOR APPLICATION NUMBER: US 60/064,964  
 ; PRIOR FILING DATE: 1997-11-08  
 ; PRIOR APPLICATION NUMBER: US 60/055,779  
 ; PRIOR FILING DATE: 1997-08-14  
 ; NUMBER OF SEQ ID NOS: 5674  
 ; SEQ ID NO 5060  
 ; LENGTH: 723  
 ; TYPE: PRT  
 ; ORGANISM: Staphylococcus epidermidis  
 US-09-134-001C-5060

Query Match 3.1%; Score 93; DB 4; Length 723;  
 Best Local Similarity 20.9%; Pred. No. 1.4;  
 Matches 110; Conservative 60; Mismatches 168; Indels 188; Gaps 28;

QY 113 SRYQSVHYRKPSYPKSSYLIIS-----KLNRYEKLHRCGPGTSEYKALKQLDQD---HID 166  
 DB 212 SRQDEINYPKPKYKYLINSVDGYDLKT-NQKRYKD-----KKELELIEHIEKHQD 262

QY 167 GDGECKYVWVWISPSGLGNRILSLASVFLYALLTDRLVLLVDRGKMDLDFCEPFLGMSWLL 226  
 DB 263 G-----KILEV-----KGNNK-----KSYAQ 278

QY 227 PLDFPMTDQDGLNQESSRCYGMVKNQVIDTGTLSHLY-LHLVHDYGDHDKMFFCEGD 285

Db 279 PL-FNLTD---LQOQAYKRYKMGPK-----ETLNTLQHLRYERHKLVTYPRDTSNLYLTD 329  
 QY 286 QTFIGKVPMLIVKTDNYFVPSLWLPFGFDELNKLFPQKATVF-----HH-----330  
 DB 330 VDTIQLERAILATD-----YKSHVRDLISKFSFSSKMHIFNNOKVSDHHAIIPTFVR 381

QY 331 -----LGRYLFHPTNQVWGLVTRV-YEAYLSHAD-----EKIGIQVRVDE 370

DB 382 PSIEQLSQREFKLYMLIAERFLENLMNPVLYEVLTTHAQLKDYHFLVKEKIPQL-----436  
 QY 371 DPGPFQHVMDQISSCTQ---KEKLLPEVDLTVERSRRHVNTPKH--KAVLVTSL-----418  
 DB 437 ---GYKALKDQLSSHTLTHSFKEGQLFKVHRIEIHETKAPFVFNESGLLKAMENPQNH 493

QY 419 -----NAGYAEHLKSMWYPTSTGEIIGV-----HQPSEGYQOTQEKWHNGKA 463  
 DB 494 IDLNDKKYAKTLK-----HTGGIGTATRADIIIEKLFNMNALESRDGKIKVTSKQK 545

QY 464 LAEMYLSTLTDNLVTSAM-STFGYVAGGLGGLKPMI-----LYRPE 503  
 DB 546 ILELSSELTSPLTAQWEEKMLIEKGKYNKSFQIEMKNFTFKVNVNKKSSQKXKHD 605

QY 504 NRTTPD-PSCGRAM-----SMEPCFHSPPFYDCKAKTIGDITGT 540  
 DB 606 NLTTTECTCGKPMIKVKTNGQMLVC-QDP---CKTKKNIQKRT 647

RESULT 3  
 US-09-252-991A-31996  
 ; Sequence 31996, Application US/09252991A  
 ; Patent No. 6551795  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Marc J. Rubenfield et al.  
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS  
 ; FILE REFERENCE: 107196.136  
 ; CURRENT APPLICATION NUMBER: US/09/252,991A  
 ; CURRENT FILING DATE: 1999-02-18  
 ; PRIOR APPLICATION NUMBER: US 60/074,788  
 ; PRIOR FILING DATE: 1998-02-18  
 ; PRIOR APPLICATION NUMBER: US 60/094,190  
 ; PRIOR FILING DATE: 1998-07-27  
 ; NUMBER OF SEQ ID NOS: 33142  
 ; SEQ ID NO 31996  
 ; LENGTH: 468  
 ; TYPE: PRT  
 ; ORGANISM: Pseudomonas aeruginosa  
 US-09-252-991A-31996

Query Match 3.1%; Score 92.5; DB 4; Length 468;  
 Best Local Similarity 23.9%; Pred. No. 0.8;  
 Matches 37; Conservative 26; Mismatches 57; Indels 35; Gaps 7;

QY 137 RNYEKLHRCGPGTSEYKALKQLDQEHIDGDECKYVWVWISPSGLGNRILSLASVFLYA 196  
 DB 110 RNYDRILE--GPIKTAISKAKQLKQSRLEHEGTTTSIIF-----VNNGYTALDHDALT 163

QY 197 LITDRV-----LLVD-----RGKMDLDFCEPFLGMSWLLPLDPPMTDQDGL-----239  
 DB 164 LIAHRVRNDTNEIDGIIVSGCYFHSDFSDFLWPFYVPIINDKOPF---EFDLHRAW 220

QY 240 NQESSRCYGM-----VKNQVIDTGTLSHL 265  
 DB 221 NLATRSMTALMQKFPCKQEIKGVPVVDQTDIDNI 255

RESULT 4  
 US-08-836-687B-30  
 ; Sequence 30, Application US/08836687B  
 ; Patent No. 6448034  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gasson, Michael John

```
; APPLICANT: Dodd, Helen Mair
; TITLE OF INVENTION: PRODUCTION OF VARIANT NISIN
; FILE REFERENCE: 20747/70
; CURRENT APPLICATION NUMBER: US/08/836,687B
; CURRENT FILING DATE: 1995-11-20
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 993
; TYPE: PRT
; ORGANISM: Lactococcus sp.
; US-08-836-687B-30

Query Match      3.1%; Score 92.5; DB 4; Length 993;
Best Local Similarity 19.1%; Pred. No. 2.7; Indels 167; Gaps 23;
Matches 90; Conservative 63; Mismatches 152;

Qy 89 VTNINSDKLLGGLASGDEDCLSRYQSVHYVRK-SPYKSSYLIKLRYEKHKRC 146
Db 224 ISNLOKD-----LLSDFSWNTFLTKVEAIDEDKKYIIPKKVKQFIOEYSEI-----I 272

Qy 147 GPTESYKALKQLOQ-----EHIDGGECKVWVWISFSGLGNRLSLAS 191
Db 273 GEGIEKLKEIYQMSQILENDNYIQIDLISDSEINFDVKQKQOQLEHAEFLGNTTKSVRR 332

Qy 192 VFL--YALLTDRLVLL---VDRGKMDLFCPEFLGMSWLLPLDPFMTQDFDQ-----LN 240
Db 333 TYLDDY---KDFIEKYGVQEQVOTELPDSTF-GIGAPYNNHPRNDFESEPSTLYS 388

Qy 241 QBSRCYGYM---VKN-QVIDTEGTLSH-----LYLHLVHDYGDHDM 279
Db 389 EEEREKLYSMYEAIVKHNHVNLLDLESHYQKMDLEKKSELQGLFLNLAKEY---EKD 445

Qy 280 FCEGQDTGKVPMLIVKTDNYFVPSLWLIQFDPDELNKLFPQKATVPHLGRYLFPT 339
Db 446 IFILGD-----IVGNNN-----LGGASGRFSALSPE----- 471

Qy 340 NQVWGLVTRYEAYLSHADEKIGIQVRVDEDPGFQHVMDQISSCTQEKLLPBDTLV 399
Db 472 -----LTSYHRTIVDSVER-----ENENKEITSC-----EIVFLP 501

Qy 400 ERSRHYN-----TPRKAVLVTSNAGYAENLKSIMYWEYPTSTGEIIGV 443
Db 502 ENIRHANVMHTSIMRRKVLPPFTSTSHNEVLLTNIVIGIDE--KEKFYARDISTQEVLEKF 559

Qy 444 HPSQEGYQOTEKQMN-----GKALAEMYLSSLTNDLVTSAWS-----TFGYV 487
Db 560 YITS-----MYNKTLSNELRFLYEISLDDKFGNLPWELIYRDPDYI 601

RESULT 5
US-09-186-276B-58
; Sequence 58, Application US/09186276B
; Patent No. 6388173
; GENERAL INFORMATION:
; APPLICANT: Benfey, Philip
; APPLICANT: DiLaurenzio, Laura
; APPLICANT: Wysocka-Diller, Joanna
; APPLICANT: Malamy, Jocelyn E.
; APPLICANT: Fysh, Leonard
; APPLICANT: Helariutta, Yrjo
; TITLE OF INVENTION: Scarecrow Gene, Promoter and Uses Thereof
; CURRENT APPLICATION NUMBER: US/09/186,276B
; FILE REFERENCE: 5914-075-999
; CURRENT FILING DATE: 1998-11-05
; PRIOR APPLICATION NUMBER: 08/842,445
; PRIOR FILING DATE: 1997-04-24
; PRIOR APPLICATION NUMBER: 08/638,617
; PRIOR FILING DATE: 1996-04-26
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 58
; LENGTH: 809
; TYPE: PRT
; ORGANISM: Plant
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (1)...(809)
; OTHER INFORMATION: Xaa = Any Amino Acid
; US-08-842-445-58

Query Match      3.1%; Score 92; DB 4; Length 809;
Best Local Similarity 21.7%; Pred. No. 2.2;
Matches 84; Conservative 52; Mismatches 179; Indels 72; Gaps 18;

Qy 66 PSDSNRIMGFAEARVLD-----AGVFP-----NVTNINSDKLLGGLASGDE---- 108
Db 63 PPSSNQTLGLANGFYLDLDFSSLDPPPEAYPSQNNNNNNNNKAVAGDILLSSSSDDADFS 122

Qy 109 DSCLSRQSVHYRKPSPYKSSYLIIS-KLRYEK-LHKRCGPGTESYKALKQLODQEH- 165
Db 123 DSVLKYSIQVLMEEDEKPCMFHDALALQAAEKSLYEALGEKDPSSSSASSVDHPERLA 182

Qy 166 --DGDGCKYVWVWISFSGLGNRLSLASVFLYALLTORVLLVDRGKMDLFCPEFLGMS 223
Db 183 SHSPDGSCS-----CGAFSDYAS-----TTTTSSDSHWSVDGLENRP-----S 221

Qy 224 WL---LPLDFPMTQDFGLNQDESSRCYGYMYKNQVIDTEGTLSHLYLHLVHDYGDHDMF 280
Db 222 WLHTPMSNF---VFQSTSRNSVTGGGGGNSAVYSGFGDGLVSNMFKD--DELAQ 275

Qy 281 FCEGQ---TFIGKVPMLIVKTDNYFVPSLWLIQFDPDELNKLFP---PQKATVPHLGRY 334
Db 276 PKGVEEASKPLPKSSQLFIDVDSY-IP--MNSGSKENGSEVFVKTEKKDTEHHHHS 331

Qy 335 LFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGFQHVMDQISSCTQEKLLPE 394
Db 332 YAPPNNRLTKKSHRDEDEDFVEERNSKQSAVYVER-SELSEMFNDFLCGPGKVC-- 388

Qy 395 VDTLVERSRYNTPKHKAVLVTSNAG 421
Db 389 -----ILNQPFTESAKVVTQAQSNQ 408

RESULT 6
US-08-842-445-58
; Sequence 58, Application US/08842445A
; Patent No. 6441270
; GENERAL INFORMATION:
; APPLICANT: Benfey et al.
; TITLE OF INVENTION: Scarecrow Gene, Promoter and Uses
; FILE REFERENCE: 5914-056-999
; CURRENT APPLICATION NUMBER: US/08/842,445A
; CURRENT FILING DATE: 1997-04-24
; EARLIER APPLICATION NUMBER: 08/638,617
; EARLIER FILING DATE: 1996-04-26
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 58
; LENGTH: 809
; TYPE: PRT
; ORGANISM: Plant
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (1)...(809)
; OTHER INFORMATION: Xaa = Any Amino Acid
; US-08-842-445-58

Query Match      3.1%; Score 92; DB 4; Length 809;
Best Local Similarity 21.7%; Pred. No. 2.2;
Matches 84; Conservative 52; Mismatches 179; Indels 72; Gaps 18;

Qy 66 PSDSNRIMGFAEARVLD-----AGVFP-----NVTNINSDKLLGGLASGDE---- 108
Db 63 PPSSNQTLGLANGFYLDLDFSSLDPPPEAYPSQNNNNNNNNKAVAGDILLSSSSDDADFS 122
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QY 109 DSCLSRYSQSVHYRKPSYPKSSYLLIS-KLRNVEK-LHKRCGPCTESYKALKQLDOEHI- 165  
DB 123 DSVLKYSIQLVMEEDMEERPCMFHDALALQAAEKSLYEALGEKDPSSSASSVDHFERIA 182  
QY 166 --DGDGECKYVVMVIFSGLGNRILSLASVFLYALLTDRVLLVDRGKMDLDFCEPFLGMS 223  
DB 183 SHSPDGSCS-----GGAFSDYAS-----TTTTSSDSHWSVDGLENRP-----S 221  
QY 224 WL---LPLDPPMTDQDGLNQESSRCYGYWVKQVLDTEGTLSHLYLHLVHDYGDHDKMF 280  
DB 222 WLHTPMSNF-----VFQSTSRNSVTGGGGGNSAVYGSFGDGLVSNMFKD--DELAHQ 275  
QY 281 FCEGDO---TFIGKVPWLIVKTDNYFVPSLWLPFGDDELNKLKLF---POKATVFHILGRY 334  
DB 276 FKGVVEASKFLPKSQSLFIDVDSY-IP---MNSGSKENGSEVVFVTEKDETEHHHHS 331  
QY 335 LFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPFQHVMDQISSCTQKEKLLPE 394  
DB 332 YAPPPNRLTGKXSHRDEDEDFVEERSNKQSAVYVEE-SELSEMFDMNMFLLCGPKPVC-- 388  
QY 395 VDTLVERSHTVTPKHKAVLVTSLNAG 421  
DB 389 -----ILNQNPFTESAKVVTQAQSNQ 408

## RESULT 7

US-09-186-188B-58  
; Sequence 58, Application US/09186188B  
; Patent No. 6455672  
; GENERAL INFORMATION:  
; APPLICANT: Benfey et al.  
; TITLE OF INVENTION: Scarecrow Gene, Promoter and Uses  
; FILE REFERENCE: 5914-074-999  
; CURRENT APPLICATION NUMBER: US/09/186,188B  
; PRIOR FILING DATE: 1998-11-05  
; PRIOR APPLICATION NUMBER: 08/842,445  
; PRIOR FILING DATE: 1997-04-24  
; PRIOR APPLICATION NUMBER: 08/638,617  
; PRIOR FILING DATE: 1996-04-26  
; NUMBER OF SEQ ID NOS: 79  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 58  
; LENGTH: 809  
; TYPE: PRT  
; ORGANISM: Plant  
; NAME/KEY: VARIANT  
; LOCATION: (1)...(809)  
; OTHER INFORMATION: Xaa = Any Amino Acid  
US-09-186-188B-58

Query Match 3.1%; Score 92; DB 4; Length 809;  
Best Local Similarity 21.7%; Pred. No. 2.2;  
Matches 84; Conservative 52; Mismatches 179; Indels 72; Gaps 18;  
QY 66 PSDSNRIMGFAARVLD-----AGVFP-----NVTWINDKLLGGLASGFDE----- 108  
DB 63 PFSSNQTLGANGFYLDLDFSLDPEAYPSQNNNNNNNNKAVAGDLLSSSSDDADFS 122  
QY 109 DSCLSRYSQSVHYRKPSYPKSSYLLIS-KLRNVEK-LHKRCGPCTESYKALKQLDOEHI- 165  
DB 123 DSVLKYSIQLVMEEDMEERPCMFHDALALQAAEKSLYEALGEKDPSSSASSVDHFERIA 182  
QY 166 --DGDGECKYVVMVIFSGLGNRILSLASVFLYALLTDRVLLVDRGKMDLDFCEPFLGMS 223  
DB 183 SHSPDGSCS-----GGAFSDYAS-----TTTTSSDSHWSVDGLENRP-----S 221  
QY 224 WL---LPLDPPMTDQDGLNQESSRCYGYWVKQVLDTEGTLSHLYLHLVHDYGDHDKMF 280  
DB 222 WLHTPMSNF-----VFQSTSRNSVTGGGGGNSAVYGSFGDGLVSNMFKD--DELAHQ 275

QY 281 FCEGDO---TFIGKVPWLIVKTDNYFVPSLWLPFGDDELNKLKLF---POKATVFHILGRY 334  
DB 276 FKGVVEASKFLPKSQSLFIDVDSY-IP---MNSGSKENGSEVVFVTEKDETEHHHHS 331  
QY 335 LFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPFQHVMDQISSCTQKEKLLPE 394  
DB 332 YAPPPNRLTGKXSHRDEDEDFVEERSNKQSAVYVEE-SELSEMFDMNMFLLCGPKPVC-- 388  
QY 395 VDTLVERSHTVTPKHKAVLVTSLNAG 421  
DB 389 -----ILNQNPFTESAKVVTQAQSNQ 408  
RESULT 8  
US-09-489-847-352  
; Sequence 352, Application US/09489847  
; Patent No. 6476195  
; GENERAL INFORMATION:  
; APPLICANT: Rosen et al.  
; TITLE OF INVENTION: 98 Human Secreted Proteins  
; FILE REFERENCE: P2031P1  
; CURRENT APPLICATION NUMBER: US/09/489,847  
; EARLIER FILING DATE: 2000-01-24  
; EARLIER APPLICATION NUMBER: PCT/US99/17130  
; EARLIER FILING DATE: 1999-07-29  
; EARLIER APPLICATION NUMBER: 60/094,657  
; EARLIER FILING DATE: 1998-07-30  
; EARLIER APPLICATION NUMBER: 60/095,486  
; EARLIER FILING DATE: 1998-08-05  
; EARLIER APPLICATION NUMBER: 60/096,319  
; EARLIER FILING DATE: 1998-08-12  
; EARLIER APPLICATION NUMBER: 60/095,454  
; EARLIER FILING DATE: 1998-08-06  
; EARLIER APPLICATION NUMBER: 60/095,455  
; EARLIER FILING DATE: 1998-08-06  
; NUMBER OF SEQ ID NOS: 376  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 352  
; LENGTH: 554  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
; NAME/KEY: SITE  
; LOCATION: (16)  
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids  
; FEATURE:  
; NAME/KEY: SITE  
; LOCATION: (109)  
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids  
US-09-489-847-352

Query Match 3.0%; Score 91; DB 4; Length 554;  
Best Local Similarity 19.6%; Pred. No. 1.5;  
Matches 86; Conservative 50; Mismatches 152; Indels 150; Gaps 19;  
QY 119 HVRKPSYK-----PSSYLISKLRNVEKLRKRCGPCT-ESYKALKQLDOEHIDGGECK 172  
DB 157 HWEESRSRKESGGPSRRGVALLRP-EPLHR-----GTADTLNVRVKL-----PCQ 202  
QY 173 YVWVIFSGLGNRILSLASVFLYALLTDRVLLVDRGKMDLDFCEPFLGMSWLLPLDFPM 232  
DB 203 ITSYLVAHTLGRRLMYPGVSVLLQKALMPVLLQGOAR-----L 240  
QY 233 TQOFGLNQESSRCYGYWVKQVLDTEGTLSHLYLHLVHDYGDHDKMFCEGDTFTGKV 292  
DB 241 VEECNGRRAKLACDGNEDTMTFVDRRGTAEPGQKLV-----ICCEGAGFY-EV 290  
QY 293 PMLIVKTDNYFVPSLWLPFGDDELNKLKFPKAT-----VFHILGRYLFHPTNQV- 342  
DB 291 GCVSTPLEAGYSVLGNHNFAGSTGVPFPQNEANADVVFQFAIHLG---FQPDIII 347  
QY 343 -----W-GLVTRYEAY--LSH 356

Db 348 YANSIGFTATWAMSGYPOVSAMILDASFDLVLKALVMPDSWRGLVTRTRVQHLNLAN 407  
QY 357 ADEKIGIQVRVDFEDPQP---FQWMDQISSCTQKEKLPE--VDTLVERSRL---VNT 407  
Db 408 AEQLCRYQ-----GPVLLIRRTKDELIITTVDPEDIMSRGNDLLLLQHRYPVWA 459  
QY 408 PKHKAIVLTVSLNAGYAENLUSMY--WE-----YPTSTGEIIGVHQ 445  
Db 460 EELRVVROWLEASSOLEEASISYRWEVEDMCLSVLRSYQAEHGPDPFWSVGEDMSADG 519  
QY 446 PSQEGYQOTEKKMHGCKA 463  
Db 520 RROLALFLARKHLHNFEA 537

## RESULT 9

US-08-222-617A-6  
; Sequence 6, Application US/08222617A  
; Patent No. 5882879  
; GENERAL INFORMATION:  
; APPLICANT: Veenstra, Annemarie E.  
; APPLICANT: Martin, Juan F.  
; APPLICANT: Garcia, Bruno D.  
; APPLICANT: Gutierrez, Santiago  
; APPLICANT: Barredo, Jose L.  
; APPLICANT: Von Doehren, Hans  
; APPLICANT: Palissa, Harriet  
; APPLICANT: Van Liempt, Henk  
; APPLICANT: Montenegro, Eduardo P.  
; TITLE OF INVENTION: A Method for Influencing Beta-Lactam  
; TITLE OF INVENTION: Antibiotic Production and for Isolation of Large  
; TITLE OF INVENTION: Quantities of ACV Synthetase  
; NUMBER OF SEQUENCES: 27  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff  
; STREET: 300 South Wacker Drive  
; CITY: Chicago  
; STATE: Illinois  
; COUNTRY: USA  
; ZIP: 60606  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/222,617A  
; FILING DATE: 04-APR-1994  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; REFERENCE/DOCKET NUMBER: 97,157  
; INFORMATION FOR SEQ ID NO: 6:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 758 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; FRAGMENT TYPE: internal  
; ORGANISM: Penicillium chrysogenum  
; ORGANISM: Penicillium chrysogenum  
; FEATURE:  
; NAME/KEY: Domain  
; LOCATION: 1..758  
; OTHER INFORMATION: /label= Domain II  
; OTHER INFORMATION: /note= "Domain II of ACV Synthetase from  
; OTHER INFORMATION: Penicillium chrysogenum; aa 1397-2154"  
US-08-222-617A-6

Query Match 3.0%; Score 90; DB 2; Length 758;  
Best Local Similarity 20.7%; Pred. No. 3.2;  
Matches 67; Conservative 35; Mismatches 99; Indels 122; Gaps 13;

QY 71 RIMGFAEARVLDAGVFPNVTNINSKLLGLASGDFDESDCLSRYSQSVHYRKPSPKPS- 129  
Db 132 RIKGMAASGTL--LYPSVLPAHPD-----SKWS-----VSNPSPLSRST 168  
QY 130 --SYLISKLNKRYEKLHKECGTSGTSYKALKQDOEHIDGGECKYVWISFSGLCNRIL 187  
Db 169 DLAYIIYT-----SGTGRPKG-----VTVEHHGVVNLQV 198  
QY 188 SLASVFLYALLTRVLLVDRGKMD---DLFCEPFLGMSWLLPLDLPMTDQDFGLNQESS 244  
Db 199 SLKVFGLRDTDDDEVILSFSNVDFHFVEQMTDAILNGQTLVLN-----DGRGDK 251  
QY 245 RCYGYMKNQVIDTETGLSHLYLHLVHDYGDHDKMFFCEGD-----QTFIGKVP 293  
Db 252 RLYRYIEKNRVLYSGTSPSVVMEFSRFDKHLRRVDCVGEAFSPVDFDKIRETFHGLV- 310  
QY 294 WLIKTDNYFVPSLWLIPIGDFDELKLPQKATVHHLGRYLFHPTNQWGLVTRYEAY 353  
Db 311 -----INGYPTSEVSITTHKRLYPF-PEREM----- 335  
QY 354 LSHADEKIGIOVR-----VFDED 371  
Db 336 -----DKSIGQQVHNSTSYVLNED 354

## RESULT 10

US-08-222-617A-12  
; Sequence 12, Application US/08222617A  
; Patent No. 5882879  
; GENERAL INFORMATION:  
; APPLICANT: Veenstra, Annemarie E.  
; APPLICANT: Martin, Juan F.  
; APPLICANT: Garcia, Bruno D.  
; APPLICANT: Gutierrez, Santiago  
; APPLICANT: Barredo, Jose L.  
; APPLICANT: Von Doehren, Hans  
; APPLICANT: Palissa, Harriet  
; APPLICANT: Van Liempt, Henk  
; APPLICANT: Montenegro, Eduardo P.  
; TITLE OF INVENTION: A Method for Influencing Beta-Lactam  
; TITLE OF INVENTION: Antibiotic Production and for Isolation of Large  
; TITLE OF INVENTION: Quantities of ACV Synthetase  
; NUMBER OF SEQUENCES: 27  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff  
; STREET: 300 South Wacker Drive  
; CITY: Chicago  
; STATE: Illinois  
; COUNTRY: USA  
; ZIP: 60606  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/222,617A  
; FILING DATE: 04-APR-1994  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; REFERENCE/DOCKET NUMBER: 97,157  
; INFORMATION FOR SEQ ID NO: 12:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 3666 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; HYPOTHETICAL: NO  
; ANTI-SENSE: NO  
; ORIGINAL SOURCE:  
; ORGANISM: Penicillium chrysogenum  
; FEATURE:

/ NAME/KEY: Protein  
/ LOCATION: 1..3666  
/ OTHER INFORMATION: /label= region  
/ OTHER INFORMATION: /note= "Region of ACV Synthetase; aa 62-3727"  
US-08-222-617A-12

Query Match 3.0%; Score 90; DB 2; Length 3666;  
Best Local Similarity 20.7%; Pred. No. 43;  
Matches 67; Conservative 35; Mismatches 99; Indels 122; Gaps 13;

QY 71 RINGFAEARVLDAGVPNPVNTINSKLLGGLASGDEDSCLRYQSVHYRKSPYKPS- 129  
DB 1467 RIKGMAASGTL---LYPSVL PANPD-----SKWS---VSNPSLSRST 1503  
QY 130 --SYLISKLRNRYEKLHRCGPGTESYKALKQLDQEHIDGDGCKYVWMISFSGLGNRIL 187  
DB 1504 DLAYIIYT-----SGTTGRPKG-----VTVEHGVNQLV 1533  
QY 188 SLASFLYALLTRVLVDRGKMD---DLFCFPFLGMSWLLPLDPFMTDQFGLNQESS 244  
DB 1534 SLSKVFLGRDTRDEVILSFSNRYVDFHFVEQMTDAILNGQTLVLN-----DGMRGDKE 1586  
QY 245 RCYGVNKNQVIDTEGTLSHLYLHLYHDYGDHDKMFCEGD-----QTFIGKVP 293  
DB 1587 RLRYIEKRNRYVLSGTPSVVSMYFBSRFKDHLLRRVDCVGEAFSEPVDFDKIRFTFGLV- 1645  
QY 294 WLIVKTDNYFVPSLWLPDGLIPGDFDELNKLFPKATVFFHILGRYLFHPTNQVWGLVTRYEAY 353  
DB 1646 -----INGYGPTEVSITTHKRLYPF-PERRM----- 1670  
QY 354 LSHADEKIGIQVR-----VFDE 371  
DB 1671 ----DKSIGQOVHNSSTSYVLNED 1689

RESULT 11  
US-08-222-617A-27  
Sequence 27, Application US/08222617A  
Patent No. 5882879  
GENERAL INFORMATION:  
APPLICANT: Veenstra, Annemarie E.  
APPLICANT: Martin, Juan F.  
APPLICANT: Garcia, Bruno D.  
APPLICANT: Gutierrez, Santiago  
APPLICANT: Barredo, Jose L.  
APPLICANT: Von Doehren, Hans  
APPLICANT: Palissa, Harriet  
APPLICANT: Van Liempt, Henk  
APPLICANT: Montenegro, Eduardo P.  
TITLE OF INVENTION: A Method for Influencing Beta-Lactam  
TITLE OF INVENTION: Antibiotic Production and for Isolation of Large  
TITLE OF INVENTION: Quantities of ACV Synthetase  
NUMBER OF SEQUENCES: 27  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff  
STREET: 300 South Wacker Drive  
CITY: Chicago  
STATE: Illinois  
COUNTRY: USA  
ZIP: 60606  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/222,617A  
FILING DATE: 04-APR-1994  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
REFERENCE/DOCKET NUMBER: 97,157  
INFORMATION FOR SEQ ID NO: 27:  
SEQUENCE CHARACTERISTICS:

/ LENGTH: 3727 amino acids  
/ TYPE: amino acid  
/ TOPOLOGY: linear  
/ MOLECULE TYPE: protein  
US-08-222-617A-27

Query Match 3.0%; Score 90; DB 2; Length 3727;  
Best Local Similarity 20.7%; Pred. No. 44;  
Matches 67; Conservative 35; Mismatches 99; Indels 122; Gaps 13;

QY 71 RINGFAEARVLDAGVPNPVNTINSKLLGGLASGDEDSCLRYQSVHYRKSPYKPS- 129  
DB 1528 RIKGMAASGTL---LYPSVL PANPD-----SKWS---VSNPSLSRST 1564  
QY 130 --SYLISKLRNRYEKLHRCGPGTESYKALKQLDQEHIDGDGCKYVWMISFSGLGNRIL 187  
DB 1565 DLAYIIYT-----SGTTGRPKG-----VTVEHGVNQLV 1594  
QY 188 SLASFLYALLTRVLVDRGKMD---DLFCFPFLGMSWLLPLDPFMTDQFGLNQESS 244  
DB 1595 SLSKVFLGRDTRDEVILSFSNRYVDFHFVEQMTDAILNGQTLVLN-----DGMRGDKE 1647  
QY 245 RCYGVNKNQVIDTEGTLSHLYLHLYHDYGDHDKMFCEGD-----QTFIGKVP 293  
DB 1648 RLRYIEKRNRYVLSGTPSVVSMYFBSRFKDHLLRRVDCVGEAFSEPVDFDKIRFTFGLV- 1706  
QY 294 WLIVKTDNYFVPSLWLPDGLIPGDFDELNKLFPKATVFFHILGRYLFHPTNQVWGLVTRYEAY 353  
DB 1707 -----INGYGPTEVSITTHKRLYPF-PERRM----- 1731  
QY 354 LSHADEKIGIQVR-----VFDE 371  
DB 1732 ----DKSIGQOVHNSSTSYVLNED 1750

RESULT 12  
US-08-222-617A-2  
Sequence 2, Application US/08222617A  
Patent No. 5882879  
GENERAL INFORMATION:  
APPLICANT: Veenstra, Annemarie E.  
APPLICANT: Martin, Juan F.  
APPLICANT: Garcia, Bruno D.  
APPLICANT: Gutierrez, Santiago  
APPLICANT: Barredo, Jose L.  
APPLICANT: Von Doehren, Hans  
APPLICANT: Palissa, Harriet  
APPLICANT: Van Liempt, Henk  
APPLICANT: Montenegro, Eduardo P.  
TITLE OF INVENTION: A Method for Influencing Beta-Lactam  
TITLE OF INVENTION: Antibiotic Production and for Isolation of Large  
TITLE OF INVENTION: Quantities of ACV Synthetase  
NUMBER OF SEQUENCES: 27  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff  
STREET: 300 South Wacker Drive  
CITY: Chicago  
STATE: Illinois  
COUNTRY: USA  
ZIP: 60606  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/222,617A  
FILING DATE: 04-APR-1994  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
REFERENCE/DOCKET NUMBER: 97,157  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:

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/ ; LENGTH: 3778 amino acids
/ ; TYPE: amino acid
/ ; TOPOLOGY: linear
/ ; MOLECULE TYPE: protein
US-08-222-617A-2

Query Match 3.0%; Score 90; DB 2; Length 3778;
Best Local Similarity 20.7%; Pred. No. 45;
Matches 67; Conservative 35; Mismatches 99; Indels 122; Gaps 13;

QY 71 RIMGFAEAVILAGVPPNTNINSKLLGLLASGDEDSCLSRYSQSVHYRKPSPYKPS- 129
Db 1528 RIKGMAAGTLL--LYPSVLPANPD-----SKWS--VSNPSPLSRST 1564
QY 130 --SYLISKLRYNEKHLKRCGPGETESYKALKQDOEHIDGCECKVYVWISFGIGNRL 187
Db 1565 DLAYIIYT-----SGTGRPKG-----VTVEHGVVNVNQV 1594
QY 188 SLASVFLYALLTRVLLVDRGKMD---DLCEPFLGMSWLLPLDPFMTDQDGLNQESS 244
Db 1595 SLKVFGLRDTDDDEVILSFNTYVDFHFVEQMTDAILNGQTLVLN-----DGMRGDKE 1647
QY 245 RCYGVYKXNQVIDTGTLSHLVHLVHDYGDHDKMFFCEGD-----QTFIGKVP 293
Db 1648 RLRYIERKRVLYLSTGTSVSMYBFSRFDKHLRRVDCVGEAFSPVDFKIRETFHGLV- 1706
QY 294 WLIVKTDNYFVPSLWLIQFDDDELNKLFPQKATVPHLGRVLFHPTNQVWGLVTRYEAY 353
Db 1707 -----INGYGTETSVIITHKRLYFF-PEREM----- 1731
QY 354 LSHADEKIGIQVR-----VFEDD 371
Db 1732 -----DKSIGQQVHNSTSYLVNED 1750

RESULT 13
US-09-268-140-3
; Sequence 3, Application US/09268140
; Patent No. 6268176
; GENERAL INFORMATION:
; APPLICANT: Gemmill, Robert M.
; APPLICANT: Drabkin, Harry A.
; TITLE OF INVENTION: TRC8, A GENE RELATED TO THE HEDGEHOG RECEPTOR, PATCHED
; FILE REFERENCE: 93445-00004
; CURRENT APPLICATION NUMBER: US/09/268.140
; CURRENT FILING DATE: 2000-03-12
; PRIOR FILING DATE: 2000-03-12
; PRIOR FILING DATE: 1998-03-12
; NUMBER OF SEQ ID NOS: 46
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 1286
; TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-268-140-3

Query Match 3.0%; Score 89.5; DB 3; Length 1286;
Best Local Similarity 20.6%; Pred. No. 8.7;
Matches 64; Conservative 41; Mismatches 81; Indels 125; Gaps 17;

QY 218 PFLGMSW-----LLPLDFPMTDQDGLN-----QESSRCYGYM 250
Db 672 PFLMRSWKFLTVMGFLAALISSLYASTRLQDGLDIIDLVPKDSNEHKFLDAQTRLFQFY 731
QY 251 VKNQVIDTEGTLSH-LYLHLVHDYGDHDKMFFCEGDQTFIGKVPWLIVKTDNYFVPSLWL 309
Db 732 SMYAV--TQGNFEYPTQQLRDY--HD-----SFV-RVPH-VIKNDNGGLPDFWL 776
QY 310 IPGFDDELNKLFPQKATVPHLGRVLFHPTNQVWGLVTRYEAYLSHADEKIGIQVRVFD 369
Db 777 L-----LF-----SEWLNQKIFD 791
QY 370 EDPGFQHVMDQISSCTQKEKLLPEVDT-----LVERSRHVNTPKHAVLTVS--LNA 420

Query Match 3.0%; Score 89; DB 2; Length 1285;
Best Local Similarity 20.3%; Pred. No. 9.8;
Matches 63; Conservative 39; Mismatches 83; Indels 126; Gaps 16;

QY 218 PFLGMSW-----LLPLDFPMTDQDGLN-----QESSRCYGYM 250
Db 672 PFLMRSWKFLTVMGFLAALISSLYASTRLQDGLDIIDLVPKDSNEHKFLDAQTRLFQFY 731
QY 251 VKNQVIDTEGTLSH-LYLHLVHDYGDHDKMFFCEGDQTFIGKVPWLIVKTDNYFVPSLWL 309
Db 732 SMYAV--TQGNFEYPTQQLRDY--HDSF-----RVPH-VIKNDNGGLPDFWL 775
QY 310 IPGFDDELNKLFPQKATVPHLGRVLFHPTNQVWGLVTRYEAYLSHADEKIGIQVRVFD 369
Db 776 L-----LF-----SEWLNQKIFD 790
QY 370 EDPGFQHVMDQISSCTQKEKLLPEVDT-----LVERSRHVNTPKHAVLTVS--LNA 420
Db 791 E-----EYRDGRLTKECWFFNASSDAILAYKLIQVGTGHVDNPDVKELVLTNRLVNS 841
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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: January 30, 2004, 15:34:17 ; Search time 39 Seconds

(without alignments)  
2973.483 Million cell updates/sec

Title: US-10-037-311B-1

Perfect score: 3004

Sequence: 1 MDQSYRRSSPIRTTGG.....GTLVPHVRHCDISWGLKLV 558

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 789580 seqs, 207824079 residues

Total number of hits satisfying chosen parameters: 789580

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:\*

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- 2: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEW PUB.pep.\*
- 3: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW PUB.pep.\*
- 4: /cgn2\_6/ptodata/2/pubpaa/US06\_PUBCOMB.pep.\*
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- 18: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1492	49.7	533	12	US-10-338-777-35
2	994.5	33.1	595	12	Sequence 35, Appl
3	110	3.7	658	12	Sequence 152, App
4	103.5	3.4	409	12	Sequence 612, App
5	99	3.3	769	11	Sequence 835, App
6	96	3.2	520	12	Sequence 504, App
7	96	3.2	524	12	Sequence 305, App
8	96	3.2	528	12	Sequence 303, App
9	96	3.2	934	12	Sequence 304, App
10	93	3.1	1418	12	Sequence 19663, A
11	92	3.1	809	15	Sequence 22315, A
12	92	3.1	946	12	Sequence 58, Appl
13	91	3.0	536	12	Sequence 19347, A
14	90.5	3.0	419	10	Sequence 646, App
15	90.5	3.0	419	12	Sequence 6, Appl
					Sequence 6, Appl

16	90.5	3.0	419	15	US-10-197-666A-134	Sequence 134, App
17	90.5	3.0	502	9	US-09-815-242-13660	Sequence 13660, A
18	90.5	3.0	512	12	US-10-369-493-10428	Sequence 10428, A
19	90.5	3.0	847	12	US-10-369-493-6478	Sequence 6478, App
20	90.5	3.0	903	12	US-10-317-832-11	Sequence 11, Appl
21	90.5	3.0	903	12	US-10-104-047-2460	Sequence 2460, App
22	90	3.0	634	12	US-10-032-585-7524	Sequence 7524, App
23	89.5	3.0	1286	10	US-09-898-533-3	Sequence 3, Appl
24	89.5	3.0	1331	12	US-10-369-493-2641	Sequence 2641, App
25	89	3.0	756	12	US-10-369-493-19945	Sequence 19945, A
26	89	3.0	1285	8	US-08-954-701A-6	Sequence 6, Appl
27	89	3.0	1285	12	US-09-754-032-6	Sequence 6, Appl
28	89	3.0	1285	12	US-10-421-446-6	Sequence 6, Appl
29	88.5	2.9	420	14	US-10-041-030-4	Sequence 4, Appl
30	88.5	2.9	420	15	US-10-197-666A-136	Sequence 136, App
31	88.5	2.9	522	15	US-10-128-714-3043	Sequence 3043, App
32	88.5	2.9	1693	12	US-10-120-801-107	Sequence 107, App
33	88	2.9	957	12	US-10-080-608A-16	Sequence 16, Appl
34	88	2.9	957	12	US-10-370-685-105	Sequence 105, App
35	87.5	2.9	748	12	US-10-369-493-6312	Sequence 6312, App
36	87.5	2.9	911	12	US-10-032-585-7655	Sequence 6, Appl
37	87	2.9	417	12	US-09-793-705-6	Sequence 6, Appl
38	87	2.9	418	10	US-09-843-905A-4	Sequence 4, Appl
39	87	2.9	418	12	US-10-317-250-4	Sequence 4, Appl
40	87	2.9	418	12	US-10-443-108-10	Sequence 10, Appl
41	87	2.9	418	14	US-10-041-030-2	Sequence 2, Appl
42	87	2.9	516	12	US-10-032-585-7407	Sequence 7407, App
43	87	2.9	522	15	US-10-128-714-8043	Sequence 8043, App
44	86.5	2.9	875	12	US-10-369-493-10263	Sequence 10263, A
45	86.5	2.9	876	9	US-09-815-242-12623	Sequence 12623, A

#### ALIGNMENTS

#### RESULT 1

US-10-338-777-35  
Sequence 35, Application US/10338777  
Publication No. US20030188343A1  
GENERAL INFORMATION:  
APPLICANT: Lynx Therapeutics, Inc.  
APPLICANT: United States Department of Agriculture  
APPLICANT: Bowen, Benjamin A.  
APPLICANT: Haudenschild, Christian D.  
APPLICANT: Buckler, Edward S.  
TITLE OF INVENTION: Identification of Genes Associated with Growth in Plants  
FILE REFERENCE: 37-000510US  
CURRENT APPLICATION NUMBER: US/10/338,777  
CURRENT FILING DATE: 2003-01-07  
NUMBER OF SEQ ID NOS: 405  
SOFTWARE: Patent version 3.1  
SEQ ID NO 35  
LENGTH: 533  
TYPE: PRT  
ORGANISM: Arabidopsis thaliana  
US-10-338-777-35

Query Match 49.7%; Score 1492; DB 12; Length 533;  
Best Local Similarity 54.6%; Pred. No. 7.6e-147;  
Matches 295; Conservative 90; Mismatches 133; Indels 22; Gaps 9;  
QY 29 LQMKYLSSGTMLTRFTTCLIVFSLVAFMIFHQPDSNRIMGFA---EARVLDAVG 85  
Db 1 MQQKFOISG-KIVKTLGLKMKVLIAVSGSLF-----ILSYNNFNKKLDATT 49  
QY 86 FPNV--TNINSKLLGLASGFDESDCLSRYSQSVH-YRKPSYPKPSYLSKLRNVEKL 142  
Db 50 KVDIKETERPVKLIIGLLTADFEGSLSRVHKYFLYRKPSYPKPSYLSKLRNVEKL 109  
QY 143 HKRCGPGTESYKALKQLDQEH-DCDGECKYVWISFGLGNRLISLASVFLYALLTDR 201  
Db 110 HKRCGDPTEYKEAIKLSRDDASNSGRCYIVWVAGYGLGNRLITLASVFLYALLTER 169

202	Qy	VLLVDVRGKMDDDLCEPFLGHSWLLPLDPMTDQFD--GLNQESSRCYGVVAKNOVIDTE	259
170	Db	IIILVDNRKVDLCEPEPGTWSLLPLDPLMLNTYAWGYNKYKPRCYGTMSRKHSIN	229
260	Qy	GTLGSHLYLHLDVHDGDKMFFCEGDQTFIGKVPWMLIVKTDNYFVPSLWMLPGPFODELNK	319
230	Db	SIPHLMYMNLHDSRSDKLFVCQKQDSLIDKVPWMLIVQANVYFVPSLWENFTFQTELVK	289
320	Qy	LPPOKATVPHHLGRYLPHPTNQWGLVTRYEAYLSHADEKIGIOVRVDEDDPGPQHVW	379
290	Db	LPQKETVFHHLARYLPHPTNEVMDVMVTDYYHAHLSKADERLGIQIRVFGPDGPFKVI	349
380	Qy	DQISGCTQKEKLLPEVDVTLVRSRHVN--TPKHKAVLVTSLNAGYAENLKSVMWYEYPTSTG	438
350	Db	DQVISCQTQREKLLPEFATPESKVNISKTPKLKSLVLVASLYPEPSGNLTNMFSPKPSSTG	409
439	Qy	EIIQVHPSQBGYQOTEKGMINGKALAEWYLLSLTDNLVTSNWSFTGVVAQGLGGLKPI	498
410	Db	EIVEYQPSGSRVQOTDKKSHDQKALAEWYLLSLTDNLVTSNARSFTGVVSYSLGGGLKPL	469
499	Qy	LYRPENRTTDPSCGRMSMEPCFHSPPFYDCKAKTGIDTGTLPVHVRHCEDISW--GLKL	557
470	Db	LYOTNFTTNPPCVRSKSMFPCYLTPPSHGCEADWGTNSGKLLFPVHCEDLIIYGGKL	529

## RESULT 2

```

US-10-259-194A-152
; Sequence 152, Application US/10259194A
; Publication No. US20040010815A1
; GENERAL INFORMATION:
; APPLICANT: Lange, Markus B.
; APPLICANT: Ghassemlan, Majid
; APPLICANT: Briggs, Steven P.
; APPLICANT: Cooper, Bret
; APPLICANT: Glazebrook, Jane
; APPLICANT: Goff, Stephen A.
; APPLICANT: Katagiri, Fumiaki
; APPLICANT: Kreps, Joel
; APPLICANT: Moughamer, Todd
; APPLICANT: Provart, Nicholas
; APPLICANT: Ricke, Darrell
; APPLICANT: Zhu, Tong
; TITLE OF INVENTION: IDENTIFICATION AND CHARACTERIZATION OF PLANT GENES
; FILE REFERENCE: 70029-NP
; CURRENT APPLICATION NUMBER: US/10/259,194A
; CURRENT FILING DATE: 2003-01-07
; PRIOR APPLICATION NUMBER: US 60/325,277
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: US 60/370,743
; PRIOR FILING DATE: 2002-04-04
; PRIOR APPLICATION NUMBER: US 60/370,620
; PRIOR FILING DATE: 2002-04-04
; NUMBER OF SEQ ID NOS: 662
; SOFTWARE: PatentList.pl version 3.0.4 (C) 2001 Syngenta
; SEQ ID NO 152
; LENGTH: 595
; TYPE: PRT
; ORGANISM: Oryza sativa
US-10-259-194A-152

```

```

Db      178 QLRSGRAGGVECYVVMVLPPDGLGNRMLSWVGFLYALLTDRVLLVDLPHOSSDLFCBP   237
Qy      219 FLGMSWLLPLDPMTDOFDGLNQBSRRCYGYMVKNQVI-----DTEGTLSH-----   264
Db      238 PPGATWLLPDPFPVANLF-GLGPRPEQSYYTLNKKKITAUVNNDDDDPASKNATAALPPP   296
Qy      265 -LYLHLVHDYGDHKMFCEGGDTQFIGKPWLIVKTNDYFVPSSLMLIPGFDELNLKLPQ   323
Db      297 PAYVYLSLGQMAKLFFCGDDQALAKVNWLLYSILFYFVPSLYSVAEFNGELRRLFFA   356
Qy      324 KATVFHHLGRYLPHPTNOVMGLTRYEAYLSHADEKIGIOVRVFEDBGPFO-HVMDQI   382
Db      357 KESACHLLARYLLAPTNAVGMVTRYNSYLAQAARRRGVQIRI--SSPASRQEHLV---   411
Qy      383 SSTQK-----EKLLPEVDITLVRSRHVNTPKHKAVLTSLNAGYAENLKSMYWEYP   434
Db      412 ---TGKPPPDNDNDLDLATAYS--NSSNGSGGNYSAIIASLYPDVYVERATRATVYEHA   466
Qy      435 TSTGEITGVHPDSOEGYQOTEKHONGKALAEMVLLSLTDNLVTSAWSTFGYVAOGLGL   494
Db      467 TRGRVRVGVQFTHEERQATQRLFHNQKALAEILLGFSDELVTSGMSTFGYVGSGLAGV   526
Qy      495 KPWLRYRPENRTTPDPCSRAMSEPCFHSPPFY----DCKARTG-IDTGTLVPHVRHCED   550
Db      527 RPTILMPAHGRVPAFCRRRAVSMEPCNLTPRVGAEACREMAAVVDXEDVARHVKVCD   586
Qy      551 ISWGLK 556
Db      587 FDRGVK 592

RESULT 3
US-09-882-227-612
; Sequence 612, Application US/09882227
; Publication No. US20030158396A1
; GENERAL INFORMATION:
; APPLICANT: Kleanthous, Harold
; APPLICANT: Al-Garawi, Amal
; APPLICANT: Miller, Charles
; APPLICANT: Tomb, Jean-Francois
; APPLICANT: Oomenen, Raymond P.
; TITLE OF INVENTION: Identification of Polynucleotides
; TITLE OF INVENTION: Encoding No. US20030158396A1el Helicobacter Polyptiditidis
; TITLE OF INVENTION: Genome
; FILE REFERENCE: 06132/047002
; CURRENT APPLICATION NUMBER: US/09/882,227
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: US 08/902,615
; PRIOR FILING DATE: 1997-07-29
; NUMBER OF SEQ ID NOS: 638
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 612
; LENGTH: 658
; TYPE: PRF
; ORGANISM: Helicobacter pylori
; US-09-882-227-612

```

```

? ORGANISM: Oryza sativa
JUS-10-259-194A-152

Query Match      33.1%; Score 994.5; DB 12; Length 595;
Best Local Similarity 40.8%; Pred No. 1.2e-94;
Matches 223; Conservative 76; Mismatches 194; Indels 53; Gaps 13

Qy 48 CLIVFSLVAFSMIFHQHPQSDSNRIM-----GFAEARVLDAGVFPNVTNINSDKLL 98
   ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||:
Db 63 CLVAL-LLFAFPVLGRSASEVLQIASSKLSAMNGGFTTKNPSSHGGGAAK---HADELL 117

Qy 99 GGLLASGFEDSDCLSRYSQSVHYRKPSPYKPSYLLISKURNTYKHLKRCGPGTSEYKKAALK 158
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 118 GGLLAPGMDRRSCRSRQAAHYHYKHFFPYAPSPHLLDKLRYEARHRRRCAPGTPLYNRSGVE 177

Qy 159 OLDOEHIDGDGECKVYVWISFGSLGNRLTSLASFLYALLTDRVLVLDVRGKMDMLDFCEP 218

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206 DRKQUMDDLFCBPFPLGMSWLLPLDFPMTDQF----- 236
   :      :      :      :      :      :
176 TEVEKQEDFYNYWRAMBERPEQNETLFRVRHVLTIKIGIPNEKRVYEA FKDYRQK 235
   :      :      :      :      :      :
237 ----DGLNCESSRCYVW----KNQVIDTEGTLSH----- 276
   :      :      :      :      :      :
236 GIEIEDLLKDLQKCYGFCQIAFKBEDDKLNKALSFVNLNEMDVYPLLELYSYKD- 294
   :      :      :      :      :      :
277 DKMFFCEGDQTEIGKVPWMLIVKTONYFVPSLWLIPG-----DDELNKLFP----- 322
   :      :      :      :      :      :
295 ----GVLSKQD--FPIIYLIYESICRRVCGTGTSNLNKFVPSFTK 335
   :      :      :      :      :      :
323 --OKATV FHHLGRYLP-----HPTNOVWGLV-----TRYEAYLSHADEKIG 362
   :      :      :      :      :      :
336 HIQOBYEYFKSLKAHFVCLUTERQFPNNDEPKKLPITIDFYKKKNKYFLERLENFDTKEP 395
   :      :      :      :      :      :
363 IQVRVFDEDPGFQHVMDQIISCTQKEKLLPEVDTLVRSRHV--NTPPKHVLVTSNA 420
   :      :      :      :      :      :
396 V--DTQKCNIEHIMPQTLPWQRDLGNSFOAHEKYLHTGN--LTLTGYS 444
   :      :      :      :      :      :
421 GYAEN-----LKSM-----WMEYPTST 437
   :      :      :      :      :      :
445 KYSNNSFQEKRDMEKFGKQSSKLKNSLKOLESGEKEIEKRASDLADWALKIWTYPILE 504
   :      :      :      :      :      :
438 GRIIGHVQPSQEGYQOOTEKQMHNGKALAEWYLLS 471
   :      :      :      :      :      :
505 AETLBEYKPKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEKKEK 538
   :      :      :      :      :      :

```

## RESULT 4

```

US-10-238-075-835
; Sequence 835, Application US/10238075
; Publication No. US20030148324A1
; GENERAL INFORMATION:
; APPLICANT: I.N.S.E.R.M.
; TITLE OF INVENTION: Polynucleotides which are of nature B2/D+ A- and which are isolated
; FILE REFERENCE: BLANDINE
; CURRENT APPLICATION NUMBER: US/10/238,075
; CURRENT FILING DATE: 2002-09-10
; PRIOR APPLICATION NUMBER: 0003145
; PRIOR FILING DATE: 2000-03-10
; NUMBER OF SEQ ID NOS: 1576
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 835
; LENGTH: 409
; TYPE: PRT
; ORGANISM: Escherichia coli
US-10-238-075-835

```

## RESULT 5

```

US-09-934-455-504
; Sequence 504, Application US/09934455
; Publication No. US20030121070A1
; GENERAL INFORMATION:
; APPLICANT: Adam, Luc
; APPLICANT: Creelman, Robert
; APPLICANT: Dubell, Arnold
; APPLICANT: Heard, Jacqueline
; APPLICANT: Jiang, Cai-Zhong
; APPLICANT: Keddie, James
; APPLICANT: Pilgrim, Marsha
; APPLICANT: Ratcliffe, Oliver
; APPLICANT: Reuber, Lynne
; APPLICANT: Riechmann, Jose Luis
; APPLICANT: Yu, Guo-Liang
; APPLICANT: Pineda, Omaiza
; TITLE OF INVENTION: Genes for Modifying Plant Traits IV
; FILE REFERENCE: MBI-0025
; CURRENT APPLICATION NUMBER: US/09/934,455
; CURRENT FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/227439
; PRIOR FILING DATE: 2000-08-22
; PRIOR APPLICATION NUMBER: MBI-0022
; PRIOR FILING DATE: 2001-11-16
; PRIOR APPLICATION NUMBER: MBI-0023
; PRIOR FILING DATE: 2001-04-17
; NUMBER OF SEQ ID NOS: 516
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 504
; LENGTH: 769
; TYPE: prt
; ORGANISM: Arabidopsis thaliana
US-09-934-455-504

```

## RESULT 6

US-10-032-201B-305  
; Sequence 305, Application US/10032201B  
; Publication No. US20030167524A1  
; GENERAL INFORMATION:  
; APPLICANT: Van Rooijen, Gijb

```
; APPLICANT: Deckers, Harm
; APPLICANT: Heifetz, Peter Bernard
; APPLICANT: Briggs, Steven
; APPLICANT: Dalmia, Bipin Kumar
; APPLICANT: Del Val, Greg
; APPLICANT: Zaplachinski, Steve
; APPLICANT: Moloney, Maurice
; TITLE OF INVENTION: METHODS FOR THE PRODUCTION OF MULTIMERIC PROTEINS, AND RELATED
; FILE REFERENCE: 38814 351B
; CURRENT APPLICATION NUMBER: US/10/032,201B
; CURRENT FILING DATE: 2001-12-19
; NUMBER OF SEQ ID NOS: 313
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 305
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-032-201B-305

Query Match      3.2%; Score 96; DB 12; Length 520;
Best Local Similarity 21.2%; Pred. No. 1.3;
Matches 58; Conservative 40; Mismatches 99; Indels 76; Gaps 12;

QY 282 CEGDQTFIGKVPMLIVKTDNYFVPSLWLIQFDDELNKLFPQ-----KATVPFHL 331
DB 229 CAGFLTGIGLDTVMRMS-----IP-----LRGFDQMSLVTEHMGHTQFLKGCVPVSHI 280
QY 332 GRYLFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPPQHVMQDISSCTQKEKL 391
DB 281 KKL---PTNQL-----QVTWEDHASK-----EDTGTFTVLWAIGR----- 314
QY 392 LPEVDTL-VERSRHVTPKHAKVLTSLNAGYAENLKSMTWEYPTSTGEIIGVHQPQSEG 450
DB 315 VPETRTLNLKAGISTPNKQKIIVDAQEA-----TSVPHIYAIGDVAEGR 360
QY 451 YQOTEKMHNGKALAE-MYLLSLT-----DNLVTSAMSTFGYVAQGLGGLKPWIL----- 499
DB 361 PELTPTAIKAGKLLAQRLFGKSSLTMDYSNVPTVFTFPLEYGCGLSEEAVALHGQEHV 420
QY 500 -----YRPNRTTPDPSCGRAMSMEPCFHSPP 526
DB 421 EVYHAYVKPLEFTVADRDASQCYIKMCMREPP 453

RESULT 7
US-10-032-201B-303
; Sequence 303, Application US/10032201B
; Publication No. US20030167524A1
; GENERAL INFORMATION:
; APPLICANT: Van Rooijen, Gijb
; APPLICANT: Deckers, Harm
; APPLICANT: Heifetz, Peter Bernard
; APPLICANT: Briggs, Steven
; APPLICANT: Dalmia, Bipin Kumar
; APPLICANT: Del Val, Greg
; APPLICANT: Zaplachinski, Steve
; APPLICANT: Moloney, Maurice
; TITLE OF INVENTION: METHODS FOR THE PRODUCTION OF MULTIMERIC PROTEINS, AND RELATED
; FILE REFERENCE: 38814 351B
; CURRENT APPLICATION NUMBER: US/10/032,201B
; CURRENT FILING DATE: 2001-12-19
; NUMBER OF SEQ ID NOS: 313
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 303
; TYPE: PRT
; ORGANISM: Mus musculus
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: 527
; OTHER INFORMATION: Xaa = Any Amino Acid
US-10-032-201B-304

Query Match      3.2%; Score 96; DB 12; Length 528;
Best Local Similarity 21.2%; Pred. No. 1.3;
Matches 58; Conservative 40; Mismatches 99; Indels 76; Gaps 12;

QY 282 CEGDQTFIGKVPMLIVKTDNYFVPSLWLIQFDDELNKLFPQ-----KATVPFHL 331
DB 237 CAGFLTGIGLDTVMRMS-----IP-----LRGFDQMSLVTEHMGHTQFLKGCVPVSHI 288
QY 332 GRYLFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPPQHVMQDISSCTQKEKL 391
DB 289 KKL---PTNQL-----QVTWEDHASK-----EDTGTFTVLWAIGR----- 322
QY 392 LPEVDTL-VERSRHVTPKHAKVLTSLNAGYAENLKSMTWEYPTSTGEIIGVHQPQSEG 450
DB 323 VPETRTLNLKAGISTPNKQKIIVDAQEA-----TSVPHIYAIGDVAEGR 368
```

```
US-10-032-201B-303

Query Match      3.2%; Score 96; DB 12; Length 524;
Best Local Similarity 21.2%; Pred. No. 1.3;
Matches 58; Conservative 40; Mismatches 99; Indels 76; Gaps 12;

QY 282 CEGDQTFIGKVPMLIVKTDNYFVPSLWLIQFDDELNKLFPQ-----KATVPFHL 331
DB 233 CAGFLTGIGLDTVMRMS-----IP-----LRGFDQMSLVTEHMGHTQFLKGCVPVSHI 284
QY 332 GRYLFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPPQHVMQDISSCTQKEKL 391
DB 285 KKL---PTNQL-----QVTWEDHASK-----EDTGTFTVLWAIGR----- 318
QY 392 LPEVDTL-VERSRHVTPKHAKVLTSLNAGYAENLKSMTWEYPTSTGEIIGVHQPQSEG 450
DB 319 VPETRTLNLKAGISTPNKQKIIVDAQEA-----TSVPHIYAIGDVAEGR 364
QY 451 YQOTEKMHNGKALAE-MYLLSLT-----DNLVTSAMSTFGYVAQGLGGLKPWIL----- 499
DB 365 PELTPTAIKAGKLLAQRLFGKSSLTMDYSNVPTVFTFPLEYGCGLSEEAVALHGQEHV 424
QY 500 -----YRPNRTTPDPSCGRAMSMEPCFHSPP 526
DB 425 EVYHAYVKPLEFTVADRDASQCYIKMCMREPP 457

RESULT 8
US-10-032-201B-304
; Sequence 304, Application US/10032201B
; Publication No. US20030167524A1
; GENERAL INFORMATION:
; APPLICANT: Van Rooijen, Gijb
; APPLICANT: Deckers, Harm
; APPLICANT: Heifetz, Peter Bernard
; APPLICANT: Briggs, Steven
; APPLICANT: Dalmia, Bipin Kumar
; APPLICANT: Del Val, Greg
; APPLICANT: Zaplachinski, Steve
; APPLICANT: Moloney, Maurice
; TITLE OF INVENTION: METHODS FOR THE PRODUCTION OF MULTIMERIC PROTEINS, AND RELATED
; FILE REFERENCE: 38814 351B
; CURRENT APPLICATION NUMBER: US/10/032,201B
; CURRENT FILING DATE: 2001-12-19
; NUMBER OF SEQ ID NOS: 313
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 304
; LENGTH: 528
; TYPE: PRT
; ORGANISM: Mus musculus
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: 527
; OTHER INFORMATION: Xaa = Any Amino Acid
US-10-032-201B-304

Query Match      3.2%; Score 96; DB 12; Length 528;
Best Local Similarity 21.2%; Pred. No. 1.3;
Matches 58; Conservative 40; Mismatches 99; Indels 76; Gaps 12;

QY 282 CEGDQTFIGKVPMLIVKTDNYFVPSLWLIQFDDELNKLFPQ-----KATVPFHL 331
DB 237 CAGFLTGIGLDTVMRMS-----IP-----LRGFDQMSLVTEHMGHTQFLKGCVPVSHI 288
QY 332 GRYLFHPTNQVGLVTRYEAYLSHADEKIGIQVRVDEDPGPPQHVMQDISSCTQKEKL 391
DB 289 KKL---PTNQL-----QVTWEDHASK-----EDTGTFTVLWAIGR----- 322
QY 392 LPEVDTL-VERSRHVTPKHAKVLTSLNAGYAENLKSMTWEYPTSTGEIIGVHQPQSEG 450
DB 323 VPETRTLNLKAGISTPNKQKIIVDAQEA-----TSVPHIYAIGDVAEGR 368
```



;; TITLE OF INVENTION: Thereof  
;; FILE REFERENCE: 5914-074-999  
;; CURRENT APPLICATION NUMBER: US/10/253.007  
;; CURRENT FILING DATE: 2002-09-23  
;; PRIOR APPLICATION NUMBER: US/09/186,188  
;; PRIOR FILING DATE: 1998-11-05  
;; PRIOR APPLICATION NUMBER: 08/842,445  
;; PRIOR FILING DATE: 1997-04-24  
;; PRIOR APPLICATION NUMBER: 08/638,617  
;; PRIOR FILING DATE: 1996-04-26  
;; NUMBER OF SEQ ID NOS: 79  
;; SOFTWARE: FastSeq for Windows Version 3.0  
;; SEQ ID NO 58  
;; LENGTH: 809  
;; TYPE: PRT  
;; ORGANISM: Plant  
;; FEATURE:  
;; NAME/KEY: VARIANT  
;; LOCATION: (1)...(809)  
;; OTHER INFORMATION: Xaa = Any Amino Acid  
US-10-253-007-58

Query Match 3.1%, Score 92; DB 15; Length 809;  
Best Local Similarity 21.7%; Pred. No. 6.9;  
Matches 84; Conservative 52; Mismatches 179; Indels 72; Gaps 18;  
Qy 66 PSDSNRTMGFAEARVLD-----AGVRP-----NVTNINSDKLLGLLASGFDE--- 108  
Db 63 PPSNQITGLANGLYLDLPSSLDPEAYPSQNNNNNNNNKAVAGDLSSSDDADFS 122  
Qy 109 DCSLSRYQSVHYRKPSYKPSYLLS- KLRNYEK-LHKRCGPGTESYKALKQDQSHI- 165  
Db 123 DSVLYKISQVLMDEEMEEKPCMFHDALQAAEKSLYEALGEKDPSSSSASSVDHPERLA 182  
Qy 166 --DGDGCKYVWISFSGLNRIILSLASVFLYALLTORVLLVDRKMDLDFCEPFLGMS 223  
Db 183 SHSPDGSCS-----GGAFSDYAS-----TTTTSSDSHWSVDGLNRP-----S 221  
Qy 224 WL---LPLDRPMTDQFDGLNQESSRCYGVYKVNQVIDTEGTLHLVLDHYGDHDKMF 280  
Db 222 WLHTPMESNP-----VFQSTSRNSVVTGGGCGNSAVTGGGDLVSNMFKD--DELAQ 275  
Qy 281 FCEGDQ---TPIGKVPWLIVKTDNYFVPSLWLIPIFGDDELNKLFP---PQKATVPHHLGRY 334  
Db 276 FKGVVEASAKFLPKSSQLFIDVDSY-IP---MNSGSKENGSEVFPVTEKKDTEHHHHS 331  
Qy 335 LFHPTNQVGLVTRYRYAYLSHADEKIGIQVRVDEDPGFQHVMDQISSCTQKEKLLPE 394  
Db 332 YAPPNNLTGKSHWRDEDEDFVEERSNKQSAVYVEE-SELSEMFNDNMLCGPGKPYC-- 388  
Qy 395 VDTLVERSRRVNTPKHKAIVLTSINAG 421  
Db 389 -----ILNQNFTESAKVVTQNSG 408

RESULT 12  
US-10-369-493-19347  
; Sequence 19347, Application US/10369493  
; Publication No. US20030233675A1  
; GENERAL INFORMATION:  
; APPLICANT: Cao, Yongwei  
; APPLICANT: Hinkle, Gregory J.  
; APPLICANT: Slater, Steven C.  
; APPLICANT: Goldman, Barry S.  
; APPLICANT: Chen, Xianfeng  
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF  
; FILE REFERENCE: 38-10(52052)B  
; CURRENT APPLICATION NUMBER: US/10/369,493  
; CURRENT FILING DATE: 2003-02-28  
; PRIOR APPLICATION NUMBER: US 60/360,039  
; PRIOR FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 47374

;; SEQ ID NO 19347  
;; LENGTH: 946  
;; TYPE: PRT  
;; ORGANISM: Myxococcus xanthus  
US-10-369-493-19347

Query Match 3.1%, Score 92; DB 12; Length 946;  
Best Local Similarity 21.7%; Pred. No. 8.9;  
Matches 105; Conservative 63; Mismatches 166; Indels 150; Gaps 26;  
Qy 20 SKSVNFSQVYKSSGTMKLTTRFTTCLIVSVLVAFSMIFQHPHSDS-NRIMGFAEA 78  
Db 376 AETNLISGL--KGYTTGGTV-----HVINNVQVGTTPDHRSSLSYTAIA 420  
Qy 79 RVLDAGVFPNVNINSD-----KLLGLLASGFDE-----SCLSYQSVHYRKPS 124  
Db 421 QMLDIPVF-----HVNGDDPEACVHIAKLVAEYQT-FKSDVIDLVYRYGHNEGDEPS 475  
Qy 125 PYKPSYLI-----SKLRNYEKLHKRCGPGTESYKALKQDQEHID-----G 167  
Db 476 FTQPMYVDIIRKHTVTRTLVAAKLAQNKI-----PAEES--EAIKQRCQOEFDALTRA 528  
Qy 168 DGECKYVWISFSGL-----GNRILSLASVFLYALLTDRVLLVDR-----GK 209  
Db 529 RQESQPKPSALEGLMKPYQGGALKSAPDV---STAVDKQVLCDAKLKSLTLPGEFNVHR 585  
Qy 210 DMDLDFCEPFLGM-----SWLLPLDPFMTDQFDGLNQESSRCYGVYKVNQVIDTE-GTL 262  
Db 586 DVERTIKKGLMDSGELQW-----SEGESLAYATLLSEGYNIRITGQDCERGTF 636  
Qy 263 SHLYLHLVHDYGDHDKMFPCEGQDTFIGKVPWLIVKTDNYFVPSLWLIPIFGDDELNKLFP 322  
Db 637 SHRHA-VVHD-----VKTGEKFPVLRQFISG----- 661  
Qy 323 QKATVPHHLGRYLFH-----PTNQVGLVTRYRYAYLSHADEKIGIQVRVDEDPGFQHV 378  
Db 662 -----TGRNGFHIYNSPLSEM-GVLGFEYGSVDVDPDGLTAAQAFQDFRNGA-QII 711  
Qy 379 MDQ- ISSCTQKEKLLPEVDTLVERSRRVNTPKH-KAVLVTSLNAGYAENLKSMTWYPTPS 436  
Db 712 IDQFIAGESKWRRLSGLTLLPHGYEGQGPESRRARLERFLDLCADENIQVC---YPTT 768  
Qy 437 TGEI 440  
Db 769 PAQI 772

RESULT 13  
US-10-369-493-646  
; Sequence 646, Application US/10369493  
; Publication No. US20030233675A1  
; GENERAL INFORMATION:  
; APPLICANT: Cao, Yongwei  
; APPLICANT: Hinkle, Gregory J.  
; APPLICANT: Slater, Steven C.  
; APPLICANT: Goldman, Barry S.  
; APPLICANT: Chen, Xianfeng  
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF  
; FILE REFERENCE: 38-10(52052)B  
; CURRENT APPLICATION NUMBER: US/10/369,493  
; CURRENT FILING DATE: 2003-02-28  
; PRIOR APPLICATION NUMBER: US 60/360,039  
; PRIOR FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 47374  
; SEQ ID NO 646  
; LENGTH: 536  
; TYPE: PRT  
; ORGANISM: Deinococcus radiodurans  
US-10-369-493-646

Query Match 3.0%, Score 91; DB 12; Length 536;  
Best Local Similarity 19.8%; Pred. No. 4.4;

	Matches	100;	Conservative	43;	Mismatches	177;	Indels	184;	Gaps	20;
Qy	54	VLVAFSMTFH--GHPSDSNRIMGFAEARVLVDAGVFENVNTNINSDKLLGGILLASGFDEDC	111							
Dd	120	VFRFSTVGHTSHSPETLRDPRGFAVKFYTEDG-----NWD-LVGNLNKIFPFRDA-	169							
Qy	112	LSRYQSVMHYKKRSP-----YK-----PSYLISKURNYE	140							
Dd	170	LKPFPDLTHSQKSPTTNIQSQRIFDFAGSPETHMITLLYSXPMGIPASYRFMQ----	224							
Qy	141	KLHKRCGPCTGSYKKALKQLDDQHIDGDGECKVWVISPGGLGNRLSLSLASFVLYALLTD	200							
Dd	225	-----GSGVNTYTKVNDQ-----GEGVLVKYHMEPVQGVRN-----LTQMQRD	262							
Qy	201	RVLVLDRGRKMDDLCEPEFLMGSWLLPLDPMTDQFDGLNQESSRCGYMVKNQVIDTEG	260							
Dd	263	EVOATWFNHATQDLHDIAERG-----DPPQWD-----	289							
Qy	261	TLSHLYLHLVHDYGDHDKMFFCFEGDQTFI---GKVPM-----LVKTDNFY	303							
Dd	290	----LFVQIMED-GEHPELDPDFLDLDTKIWPREQFMRHVGMQTLNRNPENVAETEQA	344							
Qy	304	VPSLMLIPGDFDELNLKFPOKATVFHHGLRYLFHP-----TNQVWLGV--	346							
Dd	345	FGTGVLVDGLDFDSDDKMLQGRTESYDQRYRVGPNVQLPINAPKKHVATTNQDQMA	404							
Qy	347	-----TRYEAYLS-----HADEKIGIQVRVFEDEPQPQHWMQISS	384							
Dd	405	RVTDFGQDQRNVYESPLLSSGPKKEAPRRAPETHPRVEGNLVRAAIERPPFGQAGMQYRN	464							
Qy	385	CTQKEKLLPEVDTLVERSRRVNTPKHAVLTVTSLNAGYAENLKSMYWEPYSTGETIGVH	444							
Dd	465	FADWER-----DELVSN-----LSGALAGVDKRIOCKMLEFTTAADADYG--	504							
Qy	445	QPSQEQYQQOTEKIKWHNGKALAEMY	468							
Dd	505	QVRREGTIQAKAEAMKGOKOEAPYY	528							

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RESULT 14
US-09-843-905A-6
; Sequence 6, Application US/09843905A
; Patent No. US20020168683A1
; GENERAL INFORMATION:
; APPLICANT: Bird, Timothy A.
; APPLICANT: Cosman, David J.
; TITLE OF INVENTION: HUMAN PELLINO POLYPEPTIDES
; FILE REFERENCE: 2990-A
; CURRENT APPLICATION NUMBER: US/09/843,905A
; CURRENT FILING DATE: 2001-04-27
; PRIOR APPLICATION NUMBER: US 60/200,198
; PRIOR FILING DATE: 2000-04-28
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 419
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-843-905A-6

Query Match          3.0%; Score 90.5; DB 10; Length 419;
Best Local Similarity 19.2%; Pred. No. 3,4;
Matches    61; Conservative 42; Mismatches 96; Indels 119; Gaps 16

QY   178 SFGSLGNRIISLASVFIYALITDRVLIVDRGKMD-DLFCBPFLGMSWLLPLDPMTDQF 236
      : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
Db    70 AISRRGHHSIS-----YTLSRSQTAVVEYTHDKDTDMF---QVGRSTESPIDFVVTDV 120

QY   237 DGLNQESSRCYGVWKVQVIDTEGTLSHLYLHLVDHYGDHDKMFCEGDQTFIGKVPLI 296
      : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
Db    121 SGQNEDAQI-----TQSTISRACRIV-----CDRNEPYTARI----- 154

QY   297 VKTDNYEVPSLWLIPGEDDELNLKLPQKATVFHHGLGYLFPTNQVWGLNRYEAYLSH 356

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Search completed: January 30, 2004, 15:40:58  
Job time : 40 secs

